What is claimed is:

## 1. A compound of the Formula I:

5

10

15

20

$$R^1$$
 $R^3$ 
 $X \longrightarrow R^2$ 
Formula I

wherein

n is 1 or 2;

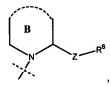
A is a divalent -CH=CH-, -( $C_1$ - $C_7$ -alkyl)-Y-, -NR<sup>d</sup>(CH<sub>2</sub>)<sub>t</sub> -Y-, -Y-( $C_1$ - $C_7$ -alkyl)-, -Y-( $C_1$ - $C_7$ -alkyl)-, -Y-NH-, -Y-NR<sup>d</sup>( $C_1$ - $C_6$ -alkyl)-, -S-, -S(O)<sub>2</sub>-, -O-Y-, -Y-O-, -Y-S-, or -S-Y-, wherein R<sup>d</sup> is H or C<sub>1</sub>-C<sub>6</sub> alkyl, t is an integer from 0 to 5, Y is C(O), C(S), S(O), S(O)<sub>2</sub>, or a bond;

X is a direct bond, CH<sub>2</sub>, CF<sub>2</sub>, O, S, NH, C(O), or C(S);

 $R^1$  is a  $C_3$ - $C_{10}$  cycloalkyl, 4-10 membered heterocycloalkyl,  $C_6$ - $C_{10}$  aryl, or 4-10 membered heteroaryl group, wherein  $R^1$  is unsubstituted or substituted with 1 to 4  $R^{10}$  groups;

 $R^2$  is  $-S(O)_2OH$ ,  $-S(O)_2NR^dR^e$ , or  $-P(O)(OR^4)_2$ , wherein  $R^4$  is an H,  $C_1-C_{10}$ -alkyl,  $C_6-C_{10}$  aryl, or  $-CH_2-O-C(O)R^eCH_3$  group,  $R^d$  and  $R^e$  are each independently an H or  $C_1-C_6$  alkyl group, and  $R^4$  is unsubstituted or substituted with 1 to 4  $R^{10}$  groups; and

 $R^3$  is OH,  $C_1\text{-}C_7\text{-alkyl},~C_1\text{-}C_7\text{-alkoxyl},~C_6\text{-}C_{10}$  aryl, 4-10 membered heteroaryl,  $C_3\text{-}C_{10}$  cycloalkyl, 3-10 membered heterocycloalkyl, -NH( $R^5$ ), or -N( $R^5$ ) $_2$  group, wherein  $R^5$  is independently selected from H,  $C_1\text{-}C_7$  alkyl,  $C_6\text{-}C_{10}$  aryl, or



25

30

wherein ring B is a 5- or 6-membered heterocycloalkyl group, Z is a divalent C(O)Z', heteroaryl or heterocycloalkyl group wherein Z' is a divalent O, S, NH, N(CH<sub>3</sub>), CO<sub>2</sub>, or CH<sub>2</sub>, and  $R^6$  is H,  $C_1$ - $C_{10}$  alkyl, aryl,  $C_1$ - $C_6$  alkyl-aryl, or arylalkyl group, wherein  $R^3$ ,  $R^5$ , B and  $R^6$  are unsubstituted or substituted with 1 to 4  $R^{10}$  groups;

wherein each  $R^{10}$  is independently selected from halo, amino, =O, =S, =NH, cyano, nitro, hydroxyl, -SH, haloalkyl, 2-10 membered heteroalkyl,  $C_1$ - $C_6$  alkoxy,  $C_1$ - $C_{10}$  alkyl,  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl, -C(O)<sub>i</sub> $R^d$ , -OC(O)C(O)C(O)R<sup>d</sup>, -OOH, -C(NR<sup>d</sup>)NR<sup>b</sup> $R^c$ , -NR<sup>d</sup>C(NR<sup>e</sup>)NR<sup>b</sup> $R^c$ ,

 $-NR^{d}C(O)_{i}R^{b}$ ,  $-C(O)NR^{b}R^{c}$ ,  $-C(O)NR^{d}COR^{b}$ ,  $-OC(O)NR^{b}R^{c}$ ,  $-NR^{b}R^{c}$ ,  $-NR^{d}OR^{c}$ ,  $-C(S)NR^{b}R^{c}$ ,  $-NR^{d}C(S)NR^{b}R^{c}$ ,  $-NR^{d}C(O)NR^{b}R^{c}$ , -OSH,  $-S(O)_{i}R^{b}$ ,  $-OS(O)_{i}R^{b}$ ,  $-SC(O)R^{b}$ ,  $-S(O)_{i}C(O)OR^{b}$ ,  $-SCOR^d$ ,  $-NR^dSR^c$ ,  $-SR^b$ ,  $-NHS(O)_iR^b$ ,  $-COSR^b$ ,  $-C(O)S(O)_iR^b$ ,  $-CSR^b$ ,  $-CS(O)_iR^b$ , -C(SO)OH,  $-C(SO)_2OH$ ,  $-NR^dC(S)R^c$ ,  $-OC(S)R^b$ , -OC(S)OH,  $-OC(SO)_2R^b$ ,  $-S(O)_iNR^bR^c$ ,  $-SNR^bR^c$ , -S(O)NR<sup>b</sup>R<sup>c</sup>, -NR<sup>d</sup>CS(O)<sub>i</sub>R<sup>c</sup>, -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>i</sub>NR<sup>d</sup>-(4-10 membered heteroaryl), -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>i</sub>NR<sup>d</sup>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>CN, -(CR<sup>d</sup> R<sup>e</sup>)<sub>t</sub>(C<sub>3</sub>-C<sub>10</sub> cycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(C<sub>6</sub>-C<sub>10</sub> aryl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>i</sub>(4-10 membered -(CR<sup>d</sup>R<sup>e</sup>)<sub>i</sub>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>),C(O)(CR<sup>d</sup>R<sup>e</sup>),(C<sub>6</sub>-C<sub>10</sub> -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(C<sub>3</sub>-C<sub>10</sub> cycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>4</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>1</sub>(4-10 heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>1</sub>(4-10 membered membered heteroaryl),  $-(CR^dR^e)_tO(CR^dR^e)_q(C_3-C_{10} \text{ cycloalkyl})$ ,  $-(CR^dR^e)_tO(CR^dR^e)_q(C_6-C_{10} \text{ aryl})$ , -(CRdRe),O(CRdRe),(4-10 membered heterocycloalkyl), -(CRdRe),O(CRdRe),(4-10 membered  $-(CR^dR^e)_aSO_2(CR^dR^e)_i(C_3-C_{10} \text{ cycloalkyl}), -(CR^dR^e)_aSO_2(CR^dR^e)_i(C_6-C_{10} \text{ aryl}),$ -(CR<sup>d</sup>R<sup>e</sup>)<sub>o</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heterocycloalkyl), and -(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heteroaryl), wherein Ra is selected from the group consisting of halo, hydroxyl, -NR<sup>d</sup>R<sup>e</sup>, C<sub>1</sub>-C<sub>10</sub> alkyl, haloalkyl, C<sub>1</sub>-C<sub>6</sub> alkoxyl, R<sup>b</sup> and R<sup>c</sup> are independently selected from H, C<sub>1</sub>- $C_{10}$  alkyl, -( $CR^dR^e$ )<sub>t</sub>( $C_3$ - $C_{10}$  cycloalkyl), -( $CR^dR^e$ )<sub>t</sub>( $C_6$ - $C_{10}$  aryl), -( $CR^dR^e$ )<sub>t</sub>(4-10 membered heterocycloalkyl), and -(CRdRe)i(4-10 membered heteroaryl), Rd and Re are independently H or C1-C6 alkyl. i is an integer from 0 to 2, q and t are each independently an integer from 0 to 5, and 1 or 2 ring carbon atoms of the cyclic moieties of the foregoing R<sup>10</sup> groups are unsubstituted or substituted with =O, and the alkyl, alkenyl, alkynyl, aryl and cyclic moieties of the foregoing R10 groups are unsubstituted or substituted with 1 to 3 substituents independently selected from halo, =O, cyano, nitro, -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>CN, haloalkyl, 2-10 membered heteroalkyl, -OR<sup>b</sup>, -C(O)<sub>i</sub>R<sup>b</sup>,  $-NR^{d}C(O)R^{b}$ ,  $-C(O)NR^{b}R^{c}$ ,  $-NR^{b}R^{c}$ ,  $-NR^{b}OR^{c}$ ,  $-NR^{d}C(O)_{i}NR^{b}R^{c}$ ,  $-NR^{d}C(O)_{i}R^{b}R^{c}$ ,  $-OC(O)_{i}R^{b}$ ,  $-OC(O)NR^bR^c$ ,  $-SR^d$ ,  $C_1-C_{10}$  alkyl,  $C_2-C_6$  alkenyl,  $C_2-C_6$  alkynyl,  $-(CR^dR^b)_t(C_3-C_{10}$  cycloalkyl), -(CRdRe)t(Ce-C10 aryl), -(CRdRe)t(4-10 membered heterocycloalkyl), -(CRdRe)t(4-10 membered heteroaryl), -( $CR^dR^e$ )<sub>t</sub>( $C_6$ - $C_{10}$  aryl)-( $C_1$ - $C_6$  alkyl); wherein t,  $R^b$ ,  $R^c$ ,  $R^d$ ,  $R^e$  are as defined above;

30

35

40

metabolite.

10

20

25

- 2. A pharmaceutically acceptable salt according to claim 1.
- 3. A compound or pharmaceutically acceptable salt according to claim 1, wherein: n is 1 or 2;

or a pharmaceutically acceptable prodrug of said compound, pharmaceutically active

metabolite of said compound, or pharmaceutically acceptable salt of said compound or

A is a divalent -NH-Y-, -NR<sup>d</sup>(CH<sub>2</sub>)<sub>t</sub>-Y-, or -O-Y-, and Y is C(O) or S(O)<sub>2</sub>;

X is a direct bond, CH<sub>2</sub>, O, or S;

 $R^{1}$  is a  $C_{6}$ - $C_{10}$  aryl or 4-10 membered heteroaryl group unsubstituted or substituted with 1 to 4  $R^{10}$  groups;

 $R^2$  is  $-S(O)_2OH$ , or  $-P(O)(OR^4)_2$ , wherein  $R^4$  is an H,  $C_1-C_{10}$  alkyl, or  $C_8-C_{10}$  aryl group, and is unsubstituted or substituted with 1 to 4  $R^{10}$  groups; and

 $R^3$  is a  $C_6$ - $C_{10}$  aryl, 4-10 membered heteroaryl, -NH( $C_6$ H<sub>5</sub>), or

10

15

20

25

30

35

wherein ring B is a 5- or 6-membered heterocycloalkyl group, Z is a divalent C(O)Z', heteroaryl or heterocycloalkyl group wherein Z' is a divalent O, S, NH, N(CH<sub>3</sub>), CO<sub>2</sub>, or CH<sub>2</sub>, and R<sup>6</sup> is H or a  $C_1$ - $C_{10}$  alkyl group, wherein  $R^3$ , B, and  $R^6$  is unsubstituted or substituted with 1 to 4  $R^{10}$  groups;

wherein each R<sup>10</sup> is independently selected from halo, amino, =O, =S, =NH, cyano, nitro, hydroxyl, -SH, haloalkyl, 2-10 membered heteroalkyl, C1-C6 alkoxy, C1-C10 alkyl, C2-C6 alkenyl,  $C_2$ - $C_6$  alkynyl, -C(O)<sub>i</sub>R<sup>a</sup>, -OC(O)<sub>i</sub>R<sup>d</sup>, -OC(O)OC(O)R<sup>d</sup>, -OOH, -C(NR<sup>d</sup>)NR<sup>b</sup>R<sup>c</sup>, -NR<sup>d</sup>C(NR<sup>e</sup>)NR<sup>b</sup>R<sup>c</sup>,  $-NR^{d}C(O)_{i}R^{b}, -C(O)NR^{b}R^{c}, -C(O)NR^{d}COR^{b}, -OC(O)NR^{b}R^{c}, -NR^{b}R^{c}, -NR^{d}OR^{c}, -C(S)NR^{b}R^{c}, -NR^{d}OR^{c}, -NR^{d}OR^{c}$  $-NR^dC(S)NR^bR^c$ ,  $-NR^dC(O)NR^bR^c$ , -OSH,  $-S(O)_iR^b$ ,  $-OS(O)_iR^b$ ,  $-SC(O)R^b$ ,  $-S(O)_jC(O)OR^b$ ,  $-S(O)_iR^b$  $SCOR^d$ ,  $-NR^dSR^c$ ,  $-SR^b$ ,  $-NHS(O)_iR^b$ ,  $-COSR^b$ ,  $-C(O)S(O)_iR^b$ ,  $-CSR^b$ ,  $-CS(O)_iR^b$ , -C(SO)OH,  $-C(SO)_2OH, \quad -NR^dC(S)R^c, \quad -OC(S)R^b, \quad -OC(S)OH, \quad -OC(SO)_2R^b, \quad -S(O)_iNR^bR^c, \quad -SNR^bR^c, \quad -SNR^$ -S(O)NR<sup>b</sup>R<sup>c</sup>, -NR<sup>d</sup>CS(O)<sub>i</sub>R<sup>c</sup>, -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>t</sub>NR<sup>d</sup>-(4-10 membered heteroaryl), -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>t</sub>NR<sup>d</sup>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)tCN, -(CR<sup>d</sup> R<sup>e</sup>)t(C<sub>3</sub>-C<sub>10</sub> cycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)t(C<sub>6</sub>-C<sub>10</sub> aryl), heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered -(CR<sup>d</sup>R<sup>e</sup>)<sub>a</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(C<sub>6</sub>-C<sub>10</sub> -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(C<sub>3</sub>-C<sub>10</sub> cycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>1</sub>(4-10 membered membered heteroaryl),  $-(CR^dR^e)_tO(CR^dR^e)_o(C_3-C_{10} \text{ cycloalkyl})$ ,  $-(CR^dR^e)_tO(CR^dR^e)_o(C_6-C_{10} \text{ aryl})$ , -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>O(CR<sup>d</sup>R<sup>e</sup>)<sub>o</sub>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>O(CR<sup>d</sup>R<sup>e</sup>)<sub>o</sub>(4-10 membered  $-(CR^dR^e)_qSO_2(CR^dR^e)_t(C_3-C_{10} \quad cycloalkyl), \quad -(CR^dR^e)_qSO_2(CR^dR^e)_t(C_6-C_{10} \quad aryl),$ -(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heterocycloalkyl), and -(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heteroaryl), wherein Ra is selected from the group consisting of halo, hydroxyl, -NR<sup>d</sup>R<sup>e</sup>, C<sub>1</sub>-C<sub>10</sub> alkyl, haloalkyl, C<sub>1</sub>-C<sub>6</sub> alkoxyl, R<sup>b</sup> and R<sup>c</sup> are independently selected from H, C<sub>1</sub>- $C_{10}$  alkyl, -( $CR^dR^e$ )<sub>t</sub>( $C_3$ - $C_{10}$  cycloalkyl), -( $CR^dR^e$ )<sub>t</sub>( $C_6$ - $C_{10}$  aryl), -( $CR^dR^e$ )<sub>t</sub>(4-10 membered heterocycloalkyl), and -(CRdRe)t(4-10 membered heteroaryl), Rd and Re are independently H or C<sub>1</sub>-C<sub>6</sub> alkyl, j is an integer from 0 to 2, q and t are each independently an integer from 0 to 5, and 1 or 2 ring carbon atoms of the cyclic moieties of the foregoing R<sup>10</sup> groups are unsubstituted or substituted with =O, and the alkyl, alkenyl, alkynyl, aryl and cyclic moieties of the foregoing R10 groups are unsubstituted or substituted with 1 to 3 substituents independently selected from halo, =O, cyano, nitro, -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>CN, haloalkyl, 2-10 membered heteroalkyl,  $-NR^{d}C(O)R^{b}$ ,  $-C(O)NR^{b}R^{c}$ ,  $-NR^{b}R^{c}$ ,  $-NR^{b}OR^{c}$ ,  $-NR^{d}C(O)_{i}NR^{b}R^{c}$ ,  $-NR^{d}C(O)_{i}R^{b}R^{c}$ ,  $-OC(O)_{i}R^{b}$ , -OC(O)NR<sup>b</sup>R<sup>c</sup>, -SR<sup>d</sup>, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(C<sub>3</sub>-C<sub>10</sub> cycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(C<sub>6</sub>-C<sub>10</sub> aryl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered

heteroaryl), -( $CR^dR^e$ )<sub>t</sub>( $C_6$ - $C_{10}$  aryl)-( $C_1$ - $C_6$  alkyl); and wherein t,  $R^b$ ,  $R^c$ ,  $R^d$ ,  $R^e$  are as defined above.

4. A compound or pharmaceutically acceptable salt according to claim 3, wherein:

n is 1;

5

15

20

25

30

A is a divalent –NH-Y- or -O-Y-, wherein Y is C(O);

X is a direct bond, CH<sub>2</sub>, or O;

R<sup>1</sup> is a C<sub>6</sub>-C<sub>10</sub> aryl group unsubstituted or substituted with 1 to 4 R<sup>10</sup> groups;

 $R^2$  is -P(O)(OR<sup>4</sup>)<sub>2</sub>, wherein R<sup>4</sup> is an H, C<sub>1</sub>-C<sub>10</sub> alkyl, or C<sub>6</sub>-C<sub>10</sub> aryl group, and is

10 unsubstituted or substituted with 1 to 4 R<sup>10</sup> groups; and

R<sup>3</sup> is a C<sub>6</sub>-C<sub>10</sub> aryl, 4-10 membered heteroaryl, or

wherein ring B is an unsubstituted 6-membered heterocycloalkyl, Z a divalent C(O)Z', Z' is a divalent O, S, or CH<sub>2</sub>, and R<sup>6</sup> is a C<sub>1</sub>-C<sub>10</sub> alkyl group, wherein R<sup>3</sup>, B and R<sup>6</sup> are unsubstituted or substituted with 1 to 4 R<sup>10</sup> groups;

wherein each R<sup>10</sup> is independently selected from halo, amino, =O, =S, =NH, cyano, nitro, hydroxyl, -SH, haloalkyl, 2-10 membered heteroalkyl, C1-C6 alkoxy, C1-C10 alkyl, C2-C6 alkenyl,  $C_2$ - $C_6$  alkynyl,  $-C(O)_iR^a$ ,  $-OC(O)_iR^d$ ,  $-OC(O)OC(O)R^d$ , -OOH,  $-C(NR^d)NR^bR^c$ ,  $-NR^dC(NR^e)NR^bR^c$ ,  $-NR^dC(O)_iR^b$ ,  $-C(O)NR^bR^c$ ,  $-C(O)NR^dCOR^b$ ,  $-OC(O)NR^bR^c$ ,  $-NR^bR^c$ ,  $-NR^dOR^c$ ,  $-C(S)NR^bR^c$ ,  $-NR^dC(S)NR^bR^c, -NR^dC(O)NR^bR^c, -OSH, -S(O)_iR^b, -OS(O)_iR^b, -SC(O)R^b, -S(O)_iC(O)OR^b, -OS(O)_iR^b, -OS(O)_iR^b,$  $\mathsf{SCOR}^d, \ -\mathsf{NR}^d\mathsf{SR}^c, \ -\mathsf{SR}^b, \ -\mathsf{NHS}(\mathsf{O})_j\mathsf{R}^b, \ -\mathsf{COSR}^b, \ -\mathsf{C}(\mathsf{O})\mathsf{S}(\mathsf{O})_i\mathsf{R}^b, \ -\mathsf{CSR}^b, \ -\mathsf{CS}(\mathsf{O})_i\mathsf{R}^b, \ -\mathsf{C}(\mathsf{SO})\mathsf{OH},$  $-C(SO)_2OH, \quad -NR^dC(S)R^c, \quad -OC(S)R^b, \quad -OC(S)OH, \quad -OC(SO)_2R^b, \quad -S(O)_iNR^bR^c, \quad -SNR^bR^c, \quad -SNR^$ -S(O)NR<sup>b</sup>R<sup>c</sup>, -NR<sup>d</sup>CS(O)<sub>i</sub>R<sup>c</sup>, -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>i</sub>NR<sup>d</sup>-(4-10 membered heteroaryl), -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>i</sub>NR<sup>d</sup>(4-10 membered heterocycloalkyl), -(CRdRe)tCN, -(CRdRe)tCN, -(CRdRe)t(C3-C10 cycloalkyl), -(CRdRe)t(C6-C10 aryl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heteroaryl),  $-(CR^{d}R^{e})_{a}C(O)(CR^{d}R^{e})_{i}(C_{6}-C_{10})$  $-(CR^{d}R^{e})_{q}C(O)(CR^{d}R^{e})_{t}(C_{3}-C_{10})$ cycloalkyl), membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10  $membered\ heteroaryI),\ -(CR^dR^e)_tO(CR^dR^e)_o(C_3-C_{10}\ cycloalkyI),\ -(CR^dR^e)_tO(CR^dR^e)_q(C_6-C_{10}\ aryI),$ -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>O(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>O(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>(4-10 membered  $-(CR^dR^e)_0SO_2(CR^dR^e)_1(C_3-C_{10} \quad cycloalkyl), \quad -(CR^dR^e)_0SO_2(CR^dR^e)_1(C_6-C_{10} \quad aryl),$ -(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heterocycloalkyl), and -(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heteroaryl), wherein Ra is selected from the group consisting of halo, hydroxyl, -NR<sup>d</sup>R<sup>e</sup>, C<sub>1</sub>-C<sub>10</sub> alkyl, haloalkyl, C<sub>1</sub>-C<sub>6</sub> alkoxyl, R<sup>b</sup> and R<sup>c</sup> are independently selected from H, C<sub>1</sub>- $C_{10} \quad \text{alkyl}, \quad \text{-(CR}^d R^e)_t (C_3 - C_{10} \quad \text{cycloalkyl}), \quad \text{-(CR}^d R^e)_t (C_6 - C_{10} \quad \text{aryl}), \quad \text{-(CR}^d R^e)_t (4-10 \quad \text{membered})$ heterocycloalkyl), and -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heteroaryl), R<sup>d</sup> and R<sup>e</sup> are independently H or

20

25

30

35

40

 $C_1$ - $C_6$  alkyl, j is an integer from 0 to 2, q and t are each independently an integer from 0 to 5, and 1 or 2 ring carbon atoms of the cyclic moieties of the foregoing R<sup>10</sup> groups are unsubstituted or substituted with =O, and the alkyl, alkenyl, alkynyl, aryl and cyclic moieties of the foregoing R<sup>10</sup> groups are unsubstituted or substituted with 1 to 3 substituents independently selected from halo, =O, cyano, nitro, -( $CR^dR^e$ )<sub>t</sub>(CN, haloalkyl, 2-10 membered heteroalkyl, - $CR^b$ , - $CO_iR^b$ , - $CI_iR^b$ , -C

5. A compound or pharmaceutically acceptable salt according to claim 4, wherein: n is 1:

A is -NH-Y- or -O-Y-, wherein Y is C(O);

15 X is a direct bond, CH<sub>2</sub>, or O;

 $R^1$  is a  $C_6$ - $C_{10}$  aryl group unsubstituted or substituted with 1 to 4  $R^{10}$  groups;

 $R^2$  is -P(O)(OR<sup>4</sup>)<sub>2</sub>, wherein R<sup>4</sup> is an H or a C<sub>1</sub>-C<sub>10</sub> alkyl group that is unsubstituted or substituted with 1 to 4 R<sup>10</sup> groups; and

 $\rm R^3$  is a C<sub>6</sub>-C<sub>10</sub> aryl or 4-10 membered heteroaryl group unsubstituted or substituted with 1 to 4  $\rm R^{10}$  groups;

wherein each R<sup>10</sup> is independently selected from halo, amino, =O, =S, =NH, cyano, nitro, hydroxyl, -SH, haloalkyl, 2-10 membered heteroalkyl, C1-C6 alkoxy, C1-C10 alkyl, C2-C6 alkenyl,  $C_2$ - $C_6$  alkynyl, -C(O)<sub>i</sub>R<sup>a</sup>, -OC(O)<sub>i</sub>R<sup>d</sup>, -OC(O)OC(O)R<sup>d</sup>, -OOH, -C(NR<sup>d</sup>)NR<sup>b</sup>R<sup>c</sup>, -NR<sup>d</sup>C(NR<sup>e</sup>)NR<sup>b</sup>R<sup>c</sup>,  $-NR^dC(O)_iR^b$ ,  $-C(O)NR^bR^c$ ,  $-C(O)NR^dCOR^b$ ,  $-OC(O)NR^bR^c$ ,  $-NR^bR^c$ ,  $-NR^dOR^c$ ,  $-C(S)NR^bR^c$ ,  $-NR^dC(S)NR^bR^c$ ,  $-NR^dC(O)NR^bR^c$ , -OSH,  $-S(O)_iR^b$ ,  $-OS(O)_iR^b$ ,  $-SC(O)R^b$ ,  $-S(O)_jC(O)OR^b$ ,  $-S(O)_iR^b$  $\mathsf{SCOR}^\mathsf{d},\ -\mathsf{NR}^\mathsf{d}\mathsf{SR}^\mathsf{c},\ -\mathsf{SR}^\flat,\ -\mathsf{NHS}(\mathsf{O})_\mathsf{i}\mathsf{R}^\flat,\ -\mathsf{COSR}^\flat,\ -\mathsf{C}(\mathsf{O})\mathsf{S}(\mathsf{O})_\mathsf{i}\mathsf{R}^\flat,\ -\mathsf{CSR}^\flat,\ -\mathsf{CS}(\mathsf{O})_\mathsf{i}\mathsf{R}^\flat,\ -\mathsf{C}(\mathsf{SO})\mathsf{OH},$  $-C(SO)_2OH, \quad -NR^dC(S)R^c, \quad -OC(S)R^b, \quad -OC(S)OH, \quad -OC(SO)_2R^b, \quad -S(O)_jNR^bR^c, \quad -SNR^bR^c,$ -S(O)NR<sup>b</sup>R<sup>c</sup>, -NR<sup>d</sup>CS(O)<sub>i</sub>R<sup>c</sup>, -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>i</sub>NR<sup>d</sup>-(4-10 membered heteroaryl), -C(O)<sub>i</sub>(CH<sub>2</sub>)<sub>i</sub>NR<sup>d</sup>(4-10 membered heterocycloalkyl), -( $CR^dR^e$ )<sub>t</sub>CN, -( $CR^dR^e$ )<sub>t</sub>( $C_3$ - $C_{10}$  cycloalkyl), -( $CR^dR^e$ )<sub>t</sub>( $C_6$ - $C_{10}$  aryl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered -(CR<sup>d</sup>R<sup>e</sup>)<sub>i</sub>(4-10 membered heteroaryl), heterocycloalkyl),  $-(CR^dR^e)_qC(O)(CR^dR^e)_t(C_6-C_{10})$ aryl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(C<sub>3</sub>-C<sub>10</sub> cycloalkyl), heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>d</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>C(O)(CR<sup>d</sup>R<sup>e</sup>)<sub>1</sub>(4-10 membered membered heteroaryl),  $-(CR^dR^e)_tO(CR^dR^e)_o(C_3-C_{10} \text{ cycloalkyl})$ ,  $-(CR^dR^e)_tO(CR^dR^e)_o(C_6-C_{10} \text{ aryl})$ , -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>O(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>(4-10 membered heterocycloalkyl), -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>O(CR<sup>d</sup>R<sup>e</sup>)<sub>q</sub>(4-10 membered  $-(CR^dR^e)_qSO_2(CR^dR^e)_t(C_3-C_{10} \quad cycloalkyl), \quad -(CR^dR^e)_qSO_2(CR^dR^e)_t(C_6-C_{10} \quad aryl),$ -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>1</sub>(4-10 membered heterocycloalkyl), and -(CR<sup>d</sup>R<sup>e</sup>)<sub>0</sub>SO<sub>2</sub>(CR<sup>d</sup>R<sup>e</sup>)<sub>1</sub>(4-10 membered heteroaryl), wherein R<sup>a</sup> is selected from the group consisting of halo, hydroxyl, -NR<sup>d</sup>R<sup>e</sup>, C<sub>1</sub>-C<sub>10</sub> alkyl, haloalkyl, C<sub>1</sub>-C<sub>6</sub> alkoxyl, R<sup>b</sup> and R<sup>c</sup> are independently selected from H, C<sub>1</sub>- $C_{10}$  alkyl,  $-(CR^dR^e)_t(C_3-C_{10}$  cycloalkyl),  $-(CR^dR^e)_t(C_6-C_{10}$  aryl),  $-(CR^dR^e)_t(4-10$  membered heterocycloalkyl), and -(CR<sup>d</sup>R<sup>e</sup>)<sub>t</sub>(4-10 membered heteroaryl), R<sup>d</sup> and R<sup>e</sup> are independently H or

 $C_1$ - $C_6$  alkyl, j is an integer from 0 to 2, q and t are each independently an integer from 0 to 5, and 1 or 2 ring carbon atoms of the cyclic moieties of the foregoing  $R^{10}$  groups are unsubstituted or substituted with =O, and the alkyl, alkenyl, alkynyl, aryl and cyclic moieties of the foregoing  $R^{10}$  groups are unsubstituted or substituted with 1 to 3 substituents independently selected from halo, =O, cyano, nitro, -( $CR^dR^e$ )<sub>1</sub>CN, haloalkyl, 2-10 membered heteroalkyl, - $CR^b$ , - $C(O)_iR^b$ , -

## 6. A compound selected from the group consisting of:

5 .

10

15

or a pharmaceutically acceptable salt thereof.

- 7. A pharmaceutical composition comprising: a therapeutically effective amount of an agent selected from the group consisting of compounds, prodrugs, metabolites, and salts as defined in claim 1; and a pharmaceutically acceptable carrier.
- 8. A method of treating a mammalian disease condition mediated by PIN1 activity, comprising administering to a mammal in need thereof a therapeutically effective amount of a compound, pharmaceutically acceptable prodrug, pharmaceutically active metabolite, or pharmaceutically acceptable salt as defined in claim 1.
- 9. A method according to claim 8, wherein the mammalian disease condition is associated with hypertension, inappropriate cell proliferation, infectious diseases, or neurodegenerative brain disorders.